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15. A method of repairing cars by applying the coating composition according to claim 1 to the substrate of a car in the refinish industry .
-

Please delete claim 2.

Response

In response to the Office Action, Applicants have amended claim 1 to incorporate the subject matter of claim 2. This amendment is not made for reasons of patentability, but to more particularly describe the invention. Claim 2 has been deleted.

In response to the Examiner's remarks regarding claim 14 under section 112 and claim 15 under 112 and 101, the Applicants have amended the language to comport with US claims language, and not for reasons of patentability. As amended, it is believed that all 112 and 101 objections have been addressed and are now moot. The basis for these amendments can be found on p. 17, ll. 10 – 11, and p. 14, ll.18-21 of the application.

Claim Rejections under 35 USC § 102

The Examiner has rejected claims 1,4,5 and 8-15 as allegedly anticipated by WO 94/28075, EP 0 448 154-A, and CA 2,101,504 or equivalent EP 0 582 188-A. None of the cited publications disclose the photolatent bases of amended claim 1. Therefore, amended claim 1 and its dependent claims 4,5 and 8-15 are not anticipated by the cited prior art.

Claim Rejections under 35 USC § 103

The Examiner has also rejected claims 1 – 15 as allegedly obvious over WO 00/10964 in combination with CA 2 101 504-A.

WO 00/10964 discloses a photolabile base for use in systems consisting of an α,β -ethylenically unsaturated carbonyl compound and a polymer containing activated CH_2 groups. WO 00/10964 does not teach or suggest adding unblocked Lewis or Brønstedt bases to the systems.

Since a particular advantage of the latent bases of WO 00/10964 is the possibility of one-pot systems having an extraordinary high level of storage stability (p. 2, 1st sentence of the translation), it actually teaches away from using unblocked basic catalysts.

Although CA 2 101 504-A generally discloses compositions comprising the components A, B, and C, contrary to what the Examiner alleges on page 4 of the Office action, CA 2 101 504-A does not teach or suggest that the basic catalyst is blocked with an acidic compound and becomes unblocked under the influence of ultraviolet light. The Examiner's statement that the basic catalysts of CA 2 101 504-A would meet the definition of the photolabile base D in instant claim 1 is not correct. Furthermore, none of the photoinitiators mentioned in CA 2 101 504-A on p. 20, l. 10 – p. 21, l. 17, is a photolabile base. The composition of CA 2 101 504 is used in particular for two component systems (p. 20, ll. 19-28).

Since WO 00/10964 teaches away from using unblocked basic catalysts because of the application of the composition as a one component system and since CA 2 101 504-A neither mentions nor suggests the use of photolabile bases and relates to two component systems, the combination of WO 00/10964 with CA 2 101 504-A is not obvious for a skilled person. One skilled in the art would not look to WO 00/10964 alone or in combination with CA 2 101 504-A for the composition of the present invention.

Claims 1 – 15 also stand rejected for alleged obviousness over WO 00/10964 in combination with US 4,602,061. Further to the discussion of the nonobviousness of the present invention in light of WO 00/10964, US 4,602,061

generally discloses compositions comprising components A, B, and C of the present invention. The use of latent bases is neither mentioned nor suggested. More particularly, as the title of US 4,602,061 already mentions, this publication refers to two component systems.

Since WO 00/10964 teaches away from using unblocked basic catalysts because of the application of the composition as a one component system and since US 4,602,061 neither mentions nor suggests the use of photolabile bases and relates to two component systems, the combination of WO 00/10964 with US 4,602,061 is not obvious for a skilled person.

Finally, claims 1 – 15 are rejected as allegedly obvious over WO 98/41524 in combination with CA 2 101 504-A or US 4,602,061. The disclosures of CA 2 101 504-A and US 4,602,061 have been discussed above.

WO 98/41524 describes α -amino alkene compounds that may be used as a photolabile base (p. 1, 1st paragraph). The compounds can be used in Michael addition reactions of monomers or polymers customary in the coatings industry (p. 14, "n"). However, there is no indication that it may be advantageous to use a second catalyst in addition to the photolabile base. To the contrary, as a particular advantage of the latent bases of WO 98/41524 is the possibility of one-pot systems having an extremely long storage life is mentioned (p. 2, 2nd paragraph). WO 98/41524 thus teaches away from using unblocked basic catalysts.

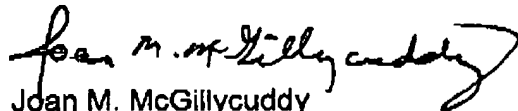
Therefore, it would not be obvious for a skilled person to combine the teaching of WO 98/41524 with either CA 2 101 504-A or US 4,602,061.

Applicant's attorney thanks Examiner Berman for taking the time to speak with her on December 23, 2002 regarding the erroneous notice of abandonment (which will be withdrawn) and also to acknowledge the confusion with regard to the prior art reference WO '075. It was agreed during the telephone interview

that since there seems to be a confusion as to the basis for asserting WO'075, that Applicant will not address those comments in this response but of course will address them at a later date, if requested.

In view of the remarks herein, the papers submitted previously, Applicants request withdrawal of the objections and believe the present application to be in condition for allowance, which action is respectfully requested.

Respectfully submitted,



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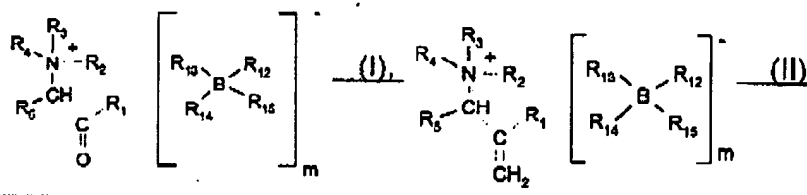
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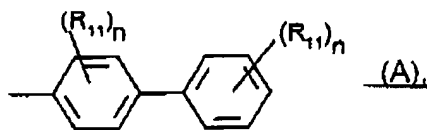
1. A photoactivatable coating composition comprising
 (A) an activated unsaturated group-containing compound, (B) an activated CH group-containing compound, (C) a catalyst in the form of one or more Lewis or Brönstedt bases, with the conjugated acids of the latter having a pKa of at least 10, and (D) a photoinitiator, wherein the photoinitiator is a photolabile base selected from
 1) α -ammonium, α -iminium or α -amidinium salts of formula (I) or (II)



wherein

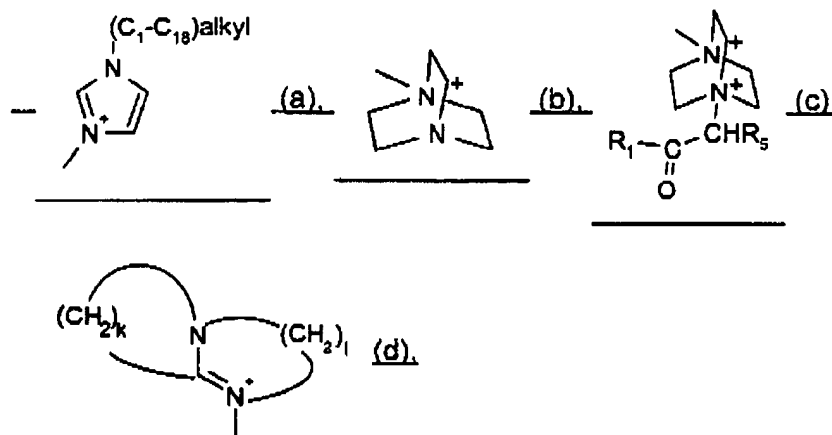
m is 1 or 2 and corresponds to the number of positive charges of the cation;

R₁ is phenyl, naphthyl, phenanthryl, anthracyl, pyrenyl, thienyl, thianthrenyl, thioxanthyl, fluorenyl or phenoxazinyl, these radicals being unsubstituted or mono- or polysubstituted with C₁-C₁₈ alkyl, C₃-C₁₈alkenyl, NR₆R₇, OH, CN, OR₈, SR₈, C(O)R₉, C(O)OR₁₀ or halogen, or R₁ is a radical of formula A



R₂, R₃, and R₄ each independently are hydrogen, C₁-C₁₈ alkyl, C₃-C₁₈ alkenyl or phenyl, or R₂ and R₃ and/or R₄ and R₃ each independently form a C₂-C₁₂ alkylene bridge; or R₂, R₃, R₄, together with the linking nitrogen atom, are a group of the structural formula (a), (b), (c), or (d)

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k and l each independently are a number from 2 to 4;

R₅, R₆, R₇, R₈, R₉, and R₁₀ are hydrogen or C₁-C₁₈ alkyl;

R₁₁ is C₁-C₁₈ alkyl, C₂-C₁₈ alkenyl, NR₆R₇, OR₈, or SR₈; and

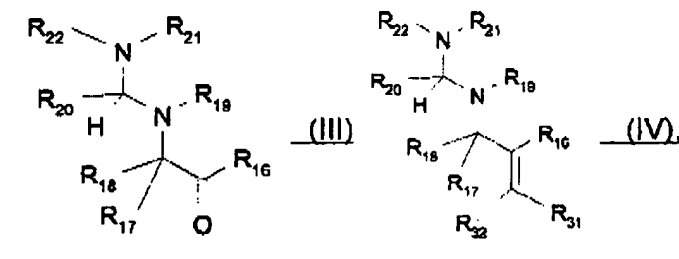
n is 0 or 1, 2 or 3;

R₁₂, R₁₃, and R₁₄ are phenyl or another aromatic hydrocarbon, these radicals being unsubstituted or mono- or polysubstituted with C₁-C₁₈ alkyl, OR₈, or halogen;

R₁₅ is C₁-C₁₈ alkyl, phenyl or another aromatic hydrocarbon, the radicals phenyl and aromatic hydrocarbon being unsubstituted or mono- or polysubstituted with C₁-C₁₈ alkyl, OR₈, or halogen;

or

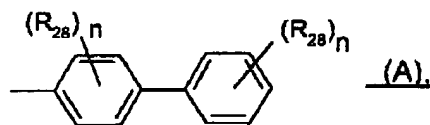
2) compounds of formula (III) or (IV)



wherein

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R₁₆ is phenyl, naphthyl, phenanthryl, anthracyl, pyrenyl, thienyl, thianthrenyl, thioxanthyl, fluorenyl or phenoxazinyl, these radicals being unsubstituted or mono- or polysubstituted with C₁-C₁₈ alkyl, C₃-C₁₈alkenyl, NR₂₃R₂₄, OH, CN, OR₂₅, SR₂₅, C(O)R₂₆, C(O)OR₂₇ or halogen, or R₁₆ is a radical of formula A



R₁₇ and R₁₈ each independently are hydrogen, C₁-C₁₈ alkyl, C₃-C₁₈ alkenyl, C₃-C₁₈ alkynyl or phenyl;

R₂₀ is C₁-C₁₈ alkyl or NR₂₉R₃₀;

R₁₉, R₂₁, R₂₂, R₂₃, R₂₄, R₂₅, R₂₆, and R₂₇ are hydrogen or C₁-C₁₈ alkyl;

R₂₈ is C₁-C₁₈ alkyl, C₂-C₁₈ alkenyl, NR₂₃R₂₄, OR₂₅, or SR₂₅; and R₂₉ and R₃₀ each independently are hydrogen or C₁-C₁₈ alkyl; or

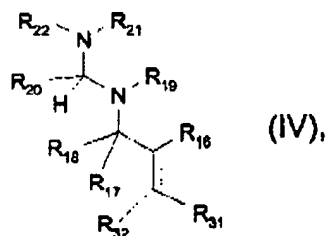
R₁₉ and R₂₁ together form a C₂-C₁₂ alkylene bridge or

R₂₀ and R₂₂ together, independently of R₁₉ and R₂₁, form a C₂-C₁₂ alkylene bridge or, if R₂₀ is NR₂₉R₃₀, R₃₀ and R₂₂ together form a C₂-C₁₂ alkylene bridge;

R₃₁ is hydrogen or C₁-C₁₈ alkyl;

R₃₂ is hydrogen, C₁-C₁₈ alkyl or phenyl.

3. A coating composition according to claim 2_1, wherein the photolabile base is an α -aminoalkene of the structure (IV),



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wherein

R_{16} is phenyl;

R_{17} and R_{18} are hydrogen or methyl;

R_{19} and R_{21} together form a C_3 -alkylene bridge;

R_{20} and R_{22} together form a C_3 -alkylene bridge;

R_{31} and R_{32} are hydrogen.

14. A method of coating a substrate wherein a coating composition according to claim 1 wherein the coating is applied to a substrate and subsequently the substrate is exposed to UV ultraviolet light.

15. A method of repairing cars by applying the Use of a coating composition according to claim 1 to the substrate of a car in the refinish industry in car repair.